

Double layer structure of L/L interfaces in the presence of adsorbed phospholipids

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Double layer capacitance of the polarized L/L interface has been measured in the presence of three phospholipids, DLPC, DSPC and . Increasing the phospholipid concentration the double layer capacity decreases at negative potentials and this behaviour is observed in all three solvents assessed. By contrast, at positive potentials the double layer capacity increases with increasing concentration. At negative potentials the adsorption was analysed using both the Frumkin isotherm and the modification proposed by Volkov. The effect of the solvent on the capacitance of the saturated monolayers indicates penetration of solvent molecules which account for the weak interactions between the adsorbed phospholipid molecules. The concentration dependence of double layer capacitance at positive potentials was explored varying the pH supporting electrolytes of the aqueous solution.